Application No. 10/717,355
Reply to Office Action of December 2, 2004

Amendments to the Claims:

Cancel claims 14-20 and amend claims 1-13 as follows:

- 1. (Currently Amended) A microelectronic structure comprising:
- (a) a semi-conducting substrate comprising circuits therein and a top surface; and
- (b) at least one first conductive bump situated on said top surface providing electrical communication to said circuits, said at least one conductive bump having a sidewall formed of an electrically insulating material, the portions of the at least one conductive bump other than the sidewall being a unitary structure, the top surface of the conductive bump being uncovered and directly exposed to its surroundings.
- 2. (Currently Amended) [[A]] <u>The</u> microelectronic structure according to claim 1, wherein said sidewall formed of an <u>the</u> electrically insulating material at least partially covers a periphery of said at least one first conductive bump.
- 3. (Currently Amended) [[A]] <u>The</u> microelectronic structure according to claim 1, wherein said sidewall formed of <u>an the</u> electrically insulating material covers completely a periphery of said at least one first conductive bump while leaving [[a]] <u>the</u> top surface of said at least one first conductive bump exposed.
- 4. (Currently Amended) [[A]] The microelectronic structure according to claim 1, wherein said sidewall formed of an the electrically insulating material at least covers a section of said sidewall in said periphery of said at least one first conductive bump that is juxtaposed to a second conductive bump situated immediately adjacent to said at least one first conductive bump.
- 5. (Currently Amended) [[A]] <u>The</u> microelectronic structure according to claim 1, wherein said electrically insulating material comprises organic material and inorganic material.

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- 6. (Currently Amended) [[A]] <u>The</u> microelectronic structure according to claim 1, wherein said electrically insulating material comprises a photosensitive material.
- 7. (Currently Amended) [[A]] <u>The</u> microelectronic structure according to claim 1, wherein said at least one first conductive bump is formed of a conductive metal selected from the group consisting of Au, Ag, Pt, Pd, Al, Cu, Sn and alloys thereof.
- 8. (Currently Amended) [[A]] <u>The</u> microelectronic structure according to claim 1, wherein said at least one first conductive bump having a height between about 5 µm and about 50 µm.
- 9. (Currently Amended) A microelectronic assembly comprising:
- (a) a semi-conducting substrate having at least one conductive bump situated on a top surface, said at least one conductive bump having a sidewall formed of an electrically insulating material, the portions of the at least one conductive bump other than the sidewall being a unitary structure, the top surface of the conductive bump being uncovered and directly exposed to its surroundings; (b) an electronic substrate having at least one conductive pad situated on a top surface; and (c) an anisotropic conductive film sandwiched in-between said semi-conducting substrate and said electronic substrate, said anisotropic conductive film comprising at least one electrically conductive particle providing electrical communication between said at least one conductive bump and said at least one conductive pad, the top surface of the conductive bump thereby being directly exposed to the at least one particle in the anisotropic conductive film.
- 10. (Currently Amended) [[A]] <u>The</u> microelectronic assembly according to claim 9, wherein said semi-conducting substrate is an integrated circuit chip and said electronic substrate is a printed circuit board or a glass substrate.
- 11. (Currently Amended) [[A]] <u>The</u> microelectronic assembly according to claim 9, wherein said sidewall formed of <u>an the</u> electrically insulating material at least partially covers a periphery of said at least one conductive bump.

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12. (Currently Amended) [[A]] The microelectronic assembly according to claim 9, wherein said

sidewall formed of an the electrically insulating material covers completely a periphery of said at

least one conductive bump while leaving [[a]] the top surface of said at least one conductive

bump exposed.

13. (Currently Amended) [[A]] The microelectronic assembly according to claim 9, wherein said

at least one conductive bump is formed of a conductive metal selected from the group consisting

of Au, Ag, Pt, Pd, Al, Cu, Sn and alloys thereof.

14-20. (Canceled)

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